

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1 of 4

**Complete if Known**

Application Number	10/618,462
Filing Date	07/11/2003
First Named Inventor	Guangming Yin
Art Unit	2817
Examiner Name	Nguyen, Patricia T.
Attorney Docket Number	BP1817CON1

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US- 5,345,449	09-06-1994	Inmos Limited	
		US- 5,420,529	05-30-1995	Northern Telecom Limited	
		US- 5,675,584	10-07-1997	Sun Microsystems, Inc.	
		US- 5,724,361	03-03-1998	LSI Logic Corporation	
		US- 5,767,699	06-16-1998	Sun Microsystems, Inc.	
		US- 5,798,658	08-25-1998	Paul M. Werking	
		US- 6,038,254	03-14-2000		
		US- 6,061,747	05-09-2000	LSI Logic Corporation	
		US- 6,094,074	07-25-2000	Seiko Epson Corporation	
		US- 6,188,339 B1	02-13-2001	Fuji Photo Film Co., Ltd.	
		US- 6,194,950 B1	02-27-2001	Lucent Technologies Inc.	
		US- 6,222,380 B1	04-24-2001		
		US- 6,265,898 B1	07-24-2001		
		US- 6,463,092 B1	10-08-2002	Silicon Image, Inc.	
		US-			
		US-			
		US-			
		US-			
		US-			

**FOREIGN PATENT DOCUMENTS**

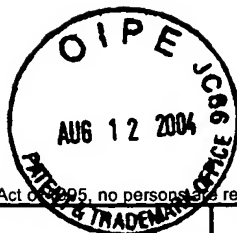
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no person is required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/618,462
Filing Date	07/11/2003
First Named Inventor	Guangming Yin
Art Unit	2816
Examiner Name	Nguyen, Patricia T.
Attorney Docket Number	BP1817CON1

Sheet 2 of 4

**NON PATENT LITERATURE DOCUMENTS**

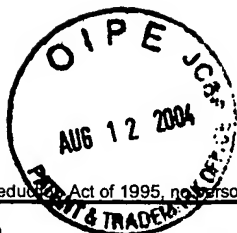
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		ATKINSON, A Single Chip Radio Transceiver for DECT, IEEE 1997	
		MIZUNO, A GHzMOS Adaptive Pipeline Technique Using MOS Current-Mode Logic, IEEE Journal of Solid-State Circuits, vol. 31, No. 6, pp 784-791 (June 1996)	
		KLOSE, Process-Optimization for Sub-30ps BiCMOS Technologies for Mixed ECL/CMOS Applications, IEEE 1991	
		HEIMSCH, Merged CMOS/Bipolar Current Switch Logic (MCSL), IEEE Journal of Solid-State Circuits, vol.24, No. 5, pp.1307-11 (October 1989)	
		ELRABAA, Optimization of Digital BiCMOS Circuit, An Overview, IEEE 1992	
		ELRABAA, Multimeter BiCMOS CML Circuits, IEEE Journal of Solid-State Circuits, vol.27, No. 3, PP. 454-458 (March 1992)	
		EWEN et al., Single-Chip 1062Mbaud CMOS Transceiver for Serial Data Communication, 1995 IEEE International Solid-State Circuits Conference Digest of Technical Papers, pp. 32-33, 336	
		CHEN and WALDRON, A Single-Chip 266Mb/s CMOS Transmitter/Receiver for Serial Data Communications, 1993 IEEE International Solid-State Circuits Conference Digest of Technical Papers, pp 100-01, 269.	
		OSHIMA et al., A Single CMOS SDH Terminal Chip for 622 Mb/s STM 4C, 1994 IEEE International Solid-State Circuits Conference Digest of Technical Papers, pp. 174-75	
		WIDMER et al., Single-Chip 4x500Mbaud CMOS Transceiver, 1996 IEEE International Solid-State Circuits Conference Digest of Technical Papers, pp.126-27, 430	

Examiner Signature	Date Considered
-----------------------	--------------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		<b>Complete if Known</b>			
		Application Number	10/618,462		
		Filing Date	07/11/2003		
		First Named Inventor	Guangming Yin		
		Art Unit	2816		
		Examiner Name	Nguyen, Patricia T.		
Sheet	3	of	4	Attorney Docket Number	BP1817CON1

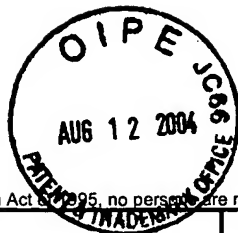
NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		LEE et al., A CMOS Serial Link for 1 Gbaud Fully Duplexed Data Communication, 1994 Symposium on VLSI Circuits Digest of Technical Papers, pp.125-26	
		LEE et al., A CMOS Serial Link for Fully Duplexed Data Communication, IEEE Journal of Solid-State Circuits, vol.30, pp.353-364 (April 1995)	
		DJAHANSHAHI et al., High-speed ECL-Compatible Serial I/O in 0.35µm CMOS, IEEE 1998	
		FUKAISHI et al., A 4.25-Gb/s CMOS Fiber Channel Transceiver with Asynchronous Tree-Type Demultiplexer and Frequency Conversion Architecture, IEEE Journal of Solid-state Circuits, Vol 33 No. 12, pp. 2139-47 (1998)	
		MADHAVAN and LEVI, Low-Power 2.5 Gbit/s VCSEL driver in 0.5µm CMOS technology, Electronics Letters, Vol. 34 No. 2 pp. 178-79 (January 1998)	
		CHEN and BAKER, A 1.25Gb/s, 460mW CMOS Transceiver for Serial Data Communication, 1997 IEEE International Solid-state Circuits Conference pp. 242-43, 465	
		RUNGE and THOMAS, 5Gbit/s 2:1 multiplexer fabricated in 0.35µm CMOS and 3Gbit/s 1:2 demultiplexer fabricated in 0.5µm CMOS technology, Electronics Letters, Vol. 35 No. 19, pp. 163 1-33 (September 1999)	
		FIEDLER et al., A 1.0625Gbps Transceiver with 2x-Oversampling and Transmit Signal Pre-Emphasis, 1997 IEEE International Solid-state Circuits Conference pp. 238-39, 464	
		WIDMER et al., Single-Chip 4 x 500-MEd CMOS Transceiver, IEEE Journal of Solid-state Circuits, Vol. 31 No. 12 pp. 2004-14 (1996)	
		KURISU et al., 2.8Gb/s 176mW Byte-Interleaved and 3.0 Gb/s 118mW Bit-Interleaved 8:1 Multiplexers, 1996 International Solid state Circuits Conference pp. 122-23, 429	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no person is required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/618,462
Filing Date	07/11/2003
First Named Inventor	Guangming Yin
Art Unit	2816
Examiner Name	Nguyen, Patricia T.
Attorney Docket Number	BP1817CON1

Sheet 4 of 4

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		FRIEDMAN et al, A Baseband Processor for IS-54 Cellular Telephony, IEEE Journal of Solid-state Circuits, Vol. 31 No. 5 pp.646-55 (May 1996)	
		EWEN et al., CMOS circuits for Gb/s serial data communication, IBM J. Res. Develop., Vol. 39 No. 12 pp. 73-81 (March 1995)	
		THOMPSON et al., A 300-MHz BiCMOS Serial Data Transceiver, IEEE Journal of Solid-state Circuits, Vol. 29 No. 3 pp. 185-92 (1994)	
		YUEN et al., An ECL Gate Array with 2.5 GHz Embedded PLL, IEEE 1993	
		QUIGLEY et al., Current Mode Transceiver Logic, (CMTL) for Reduced Swing CMOS, Chip to Chip Communication, IEEE 1993	
		DUNLOP et al., A 9 Gbit/s Bandwidth Multiplexer/Demultiplexer CMOS Chip, 1992 Symposium on VLSI Circuits Digest of Technical Papers pp. 68-69	
		NAVARRO and VAN NOIJE, Design of an 8:1 MUX at 1.7Gbit/s in 0.8µm CMOS Technology, 1998 Great Lakes Symposium on VLSI	
		PEDERSON and METZ, A CMOS to I <sup>2</sup> C ECL Interface Circuit, 1989 IEEE International Solid-state Circuits Conference pp. 226-27, 345	
		BAUMERT et al., A Monolithic 50-200 MHz CMOS Clock Recovery and Retiming Circuit, IEEE 1989 Custom Integrated Circuits Conference pp.14.5.1-14.5.4. (May 1989)	

Examiner Signature	Date Considered
-----------------------	--------------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.